

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of making a three-dimensional object, comprising:

(a) forming a powder material layer of inorganic material;

(b) irradiating an optical beam on a predetermined portion of the powder material layer to form a first sintered layer and integrate the first sintered layer with a second sintered layer just below the first sintered layer;

(c) repeating (a) and (b) to form a sintered block united with a plurality of the first and second sintered layers, the sides of the sintered block including a concave portion formed on a lower part of the sintered block;

(d) accepting a hanging portion of an excess portion by the concave portion surface of the lower part of the sintered block;

(e) [(d)] removing [(an)] the excess portion from a surface of the sintered block; and

(f) [(e)] repeating (c) to (e) and (d) with respect to the sintered block from which the excess portion is removed, in order to make a target shape of a three-dimensional object united with a plurality of the sintered blocks.

2. – 3. (Cancelled)

4. (Previously Presented) The method according to claim 1, further comprising uniting with a thin sheet covering the top surface of the sintered block.

5. (Previously Presented) The method according to claim 1, further comprising treating the surface of the sintered block after removing an excess portion to be unreactive with the powder material.

6. (Previously Presented) The method according to claim 5, further comprising, after treating the surface of the sintered block, placing non-adhesive powder around the surface of the sintered block.

7. (Previously Presented) The method according to claim 5, further comprising, after treating the surface of the sintered block, placing a mask on the top surface of the sintered block, the mask having an aperture that is approximately equal to the outline of the sintered block.

8. (Previously Presented) A method of making a three-dimensional object, comprising:

(a) forming a powder material layer of inorganic material;

(b) irradiating an optical beam along an outline of predetermined portion to be sintered of the powder material layer to form an outline-sintered portion;

(c) irradiating the optical beam on all of predetermined portions to be sintered of the powder material layer to form a first sintered layer and integrate the first sintered layer with a second sintered layer just below the first sintered layer, in which each of the predetermined portions is the predetermined portion;

(d) repeating (a) and (c) to form a sintered block united with a plurality of the first and second sintered layers;

(e) removing an excess portion from a surface of the sintered block; and

(f) repeating (a), (b), (c), (d) and (e) with respect to the sintered block where the excess portion is removed to make a target shape of a three-dimensional object united with a plurality of the sintered blocks.

9. (Currently Amended) A method of making a three-dimensional object, comprising:

(a) forming a powder material layer of inorganic material;

(b) irradiating an optical beam on a predetermined portion of the powder material layer to form a first sintered layer and integrate the first sintered layer with a second sintered layer just below the first sintered layer;

(c) repeating (a) and (b) to form a sintered block united with a plurality of the first and second sintered layers, the sides of the sintered block including a

concave portion wherein an upper surface of the concave portion is declined from the outside toward the inside;

(d) accepting a hanging portion of an excess portion by the concave portion surface of the lower part of the sintered block;

(e) [[(d)]] removing [[an]] the excess portion from a surface of the sintered block; and

(f) [[(e)]] repeating (c) to (e) and ~~(d)~~ with respect to the sintered block from which the excess portion is removed, in order to make a target shape of a three-dimensional object united with a plurality of the sintered blocks.

10. (Previously Presented) The method according to claim 9, further comprising uniting with a thin sheet covering the top surface of the sintered block.

11. (Previously Presented) The method according to claim 9, further comprising treating the surface of the sintered block after removing an excess portion to be unreactive with the powder material.

12. (Previously Presented) The method according to claim 11, further comprising, after treating the surface, placing non-adhesive powder around the surface of the sintered block.

13. (Previously Presented) The method according to claim 11, further comprising, after treating the surface, placing a mask on the top surface of the sintered block, the mask having an aperture that is approximately equal to the outline of the sintered block.